

REMARKS

Reexamination and reconsideration of the rejections are hereby requested. It is hereby requested that the above identified patent application be revived. First of all, accompanying this response is a Petition to Revive. The failure to respond to the Office Action in a timely manner was unintentional.

Claims 1-40 are pending in this application and claims 1-9 and 14-40 have been withdrawn from consideration. Claims 10-13 stand rejected.

The present invention, in the aspect set out in claims 10-13, is fullerene structure chemically bonded to a carbon surface. The fullerene structure may be C₆₀. The fullerene C₆₀ may be chemically bonded to carbon black by a carbon atom bridged to two carbon atoms of the fullerene and to two carbon atoms of carbon black.

Claims 10 and 11 stand rejected under 35 U.S.C. §102b as being anticipated by Remo, U.S. Patent Number 5,132,105. Remo is directed to a method for making diamonds or diamond like structures starting with a fullerene. For example, fullerene C₆₀ is heated in the presence of oxygen and acetylene to create diamond like structures. Importantly, in the process of making diamond or diamond like structure, the fullerene itself is broken up. The Examiner's attention is directed to Remo at column 3 beginning at line 20 which states, "As the tetrahedral bond is formed and the covalent bond broken, the fullerene structure may begin to unwind and break up." Later in column 3 at line 39 Remo states that "As the fullerene molecule breaks up, diamond crystals and other carbon atoms remain." The Examiner's attention is also directed to column 7 beginning at line 18 wherein patentee states that "Interaction of the microwave energy, fullerene, and gasses converts the fullerene particles and carbon in the gasses to diamonds and/or diamond like particles."

Thus, it is quite clear that Remo does not teach a fullerene structure chemically bonded to a carbon surface but is rather directed to a way of making diamonds or diamond like structures starting with fullerenes that are then broken apart. Reconsideration is requested.

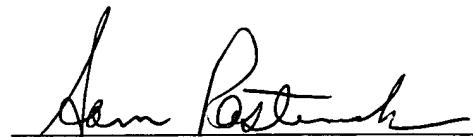
Claims 10 and 11 stand rejected under 35 U.S.C. §102b as anticipated by the Taylor reference. The Examiner points out that Taylor teaches polymerization of fullerenes, that is fullerenes linked to one another. It is submitted that Taylor does not, however, teach fullerene structures chemically bonded to a carbon *surface*. Reconsideration is requested.

Claims 10, 11, 12 and 13 stand rejected under 35 U.S.C. §102b as anticipated by or, in the alternative under 35 U.S.C. §103a as obvious over Schwob, U.S. Patent Number 6,358,375. Schwob teaches a technique for making carbon black having a high content of C₆₀ fullerenes. There is nothing whatsoever in Schwob, however, that would suggest that the fullerenes are chemically bonded to carbon black. The Examiner then refers to In Re Brown, 173 USPQ 685, 688 and In Re Fessman 180 USPQ 324 concerning the burden shifting to applicant in a product-by-process claim. It is submitted that claims 10-13 are clearly *not* product-by-process claims. Rather, claim 10 positively recites “Fullereric structure chemically bonded to a carbon surface.” Similarly, claims 11-13 are positive structural recitations. There are no process limitations included in any of these claims. It is therefore submitted that reference to case law concerning product-by-process claims is inapposite. There is nothing in Schwob to suggest that the fullerenes are chemically bonded to carbon black.

Claims 10-13 also stand rejected under 35 U.S.C. §102b as anticipated by or, in the alternative, under 35 U.S.C. §103a as obvious over Yamamoto JP 11-140342. This reference was supplied by applicant and discussed in the specification. As stated in the specification on page 1, “This reference, however, does not establish the chemical bonding of fullerenes to carbon black.” I note again that claims 10-13 are not product-by-process claims and hence the case law cited in conjunction with this rejection is inappropriate.

For the foregoing reasons, it is submitted that the pending claims are in condition for allowance and early favorable action is requested.

Respectfully submitted,
CHOATE, HALL & STEWART LLP



Sam Pasternack
Registration No. 29,576

Date: June 6, 2006

Choate, Hall & Stewart LLP
Two International Place
Boston, MA 02109
(617) 248-5000